



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105**

**MAR 21 2017**

**Ex. 6 Personal Privacy (PP)**

FedEx Tracking No. 7787-2933-0186  
Signature Upon Delivery Requested

**RESPONSE REQUIRED WITHIN FIVE (5) BUSINESS DAYS**

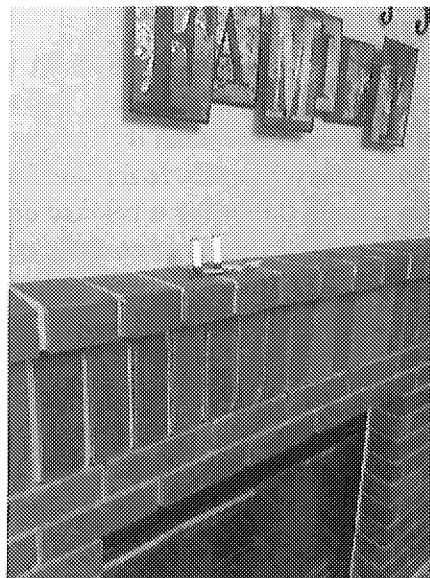
**Re: Final Request to Provide Access for Indoor Air Sampling  
Authority Under Section 104(e) of CERCLA  
Triple Site Vapor Intrusion Investigation, Sunnyvale, California**

**Ex. 6 Personal Privacy (PP)**

Dear Mr. **Ex. 6 Personal Privacy (PP)**

Under its authority pursuant to Section 104(e)(5) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended, 42 U.S.C. § 9604(e)(5), and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR § 300.400(d)(4), U.S. EPA is requesting that you provide access to your property located at **Ex. 6 Personal Privacy (PP)** Sunnyvale, CA 94085.

***Sampling Process – Simple & Quick – Identify Convenient Indoor Sample Locations***



A few small samplers are placed in the home (usually in the living room) in a convenient location. The photo on the left shows samplers being attached to window blinds. The photo on the right shows samplers placed on the mantel above the fireplace.

## **Ex. 6 Personal Privacy (PP)**



We conduct a short 10-minute survey with the resident about how the home is heated and the types of chemicals stored.



We also place a few samplers underneath the home in the crawlspace to measure TCE vapor levels below the building. The crawlspace entry is typically either outside at the back of the building or indoors in a bedroom closet.

**U.S. EPA requires access to conduct indoor air sampling to determine if there is a potential for trichloroethene (TCE) vapors from contaminated groundwater underneath your property to come up through the soil and accumulate in overlying buildings – a process called “vapor intrusion.”**

**If you do not provide access, U.S. EPA may issue an Administrative Order for Access (Access Order) requiring that you provide access. Failure to comply with the Access Order may subject you to civil penalty of up to \$53,907 each day as provided in Section 104(e)(5) of CERCLA, 42 U.S.C. 9604(e)(5) and the Civil Monetary Penalty Inflation Adjustment Rule, 69 Fed. Reg. 7121, 40 CFR Part 194. In addition, any person who is liable for a release or threat of release of a hazardous substance or pollutant or contaminant and who fails to comply with the Access Order may be liable for punitive damages in an amount up to three times the amount of any costs incurred by the United States as a result of such failure as provided in Section 107(c)(3) of CERCLA, 43 U.S.C. §9607(c)(3).**

U.S. EPA has previously contacted you by letter three (3) times on December 3, 2014, June 26, 2015, and September 18, 2015 and has conducted three (3) rounds of door-to-door outreach with your tenants on December 17 and 18, 2014, January 5, 2015 and September 22, 2015 to provide information about the project and request consent to conduct indoor air testing.

Section 104(e)

Final Request to Provide Access for Indoor Air Sampling

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U.S. EPA subsequently sent you another letter via FedEx on April 14, 2016 ("April 2016 letter") which stressed the urgency of EPA's indoor air request and the need for sampling to ensure that your tenants are not being exposed to TCE at unsafe levels. This letter was refused acceptance.

On May 10, 2016 we reached you by telephone to request your permission to conduct indoor air testing at your building and you refused EPA's sampling request.

On May 9 and July 6, 2016 we re-sent you the April 2016 letter via regular mail to your business address in San Mateo. We also re-sent the April 2016 letter via FedEx on July 6, 2016 to your business address in San Mateo. The July 6, 2016 mailing to your business address was successfully delivered on November 7, 2015 and signed for by D. Karp.

Finally, on November 4, 2016, we sent via FedEx a Request to Provide Access for Indoor Air Sampling, referencing EPA's authority pursuant to CERCLA Section 104(e)(5), to both your home and business addresses to further inform you that if you do not provide access, U.S. EPA may issue an Administrative Order requiring that you provide access. The letter sent to your home address in Redwood City was returned to EPA, but the letter sent to your business address in San Mateo was successfully delivered on November 7, 2016 and signed for by H. Hernandez.

To date, we have not received a response from you authorizing access and indoor air sampling.

As we have informed you in our letters, U.S. EPA has sampled buildings in close proximity to your property and has found evidence that unacceptable vapor intrusion is occurring in certain school buildings and residences. Measurements in these buildings showed TCE levels of up to 16 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) in indoor air and up to 20  $\mu\text{g}/\text{m}^3$  in samples obtained underneath the buildings. These concentrations exceed both U.S. EPA's long-term screening level of 0.48  $\mu\text{g}/\text{m}^3$ , which is designed to protect against cancer risks, and U.S. EPA's short-term screening level of 2  $\mu\text{g}/\text{m}^3$ , which is designed to protect against non-cancer risks, including effects on the immune and nervous systems and cardiac defects in the developing fetus.

**Your authorization to sample is critical to ensure that your building occupants are not being exposed to TCE at unsafe levels.** Any mitigation that will be necessary shall be conducted by the Responsible Parties (RPs) for the groundwater contamination. A pre-addressed and stamped return envelope is provided for your convenience. **Please sign the Sampling Access Agreement and return it to U.S. EPA no later than five (5) business days of your receipt of this letter. If we do not receive this Access Agreement within such time, U.S. EPA may issue an Administrative Order for Access.**

The Sampling Access Agreement should be sent to the following address:

Melanie Morash  
U.S. EPA Region 9  
75 Hawthorne Street (SFD-7-1)  
San Francisco, California 94105

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Please also include with the Sampling Access Agreement a list of the tenants and their telephone numbers, so that U.S. EPA can contact occupants to schedule sampling appointments. Alternatively, you may provide tenants with U.S. EPA's contact information and they can contact U.S. EPA to set up sampling appointments:

Melanie Morash  
U.S. EPA Project Manager  
(415) 972-3050  
[morash.melanie@epa.gov](mailto:morash.melanie@epa.gov)

Alejandro Diaz [Spanish fluent]  
U.S. EPA Community Involvement Coordinator  
(415) 972-3242  
[diaz.alejandro@epa.gov](mailto:diaz.alejandro@epa.gov)

If you have any technical questions, please contact U.S. EPA's Project Manager, Melanie Morash or U.S. EPA's Community Involvement Coordinator, Alejandro Diaz, who is fluent in Spanish, by telephone or e-mail provided above. If you are represented by an attorney, please have your counsel contact Thelma K. Estrada of U.S. EPA's Office of Regional Counsel, at (415) 972-3866 or by e-mail to [estrada.thelma@epa.gov](mailto:estrada.thelma@epa.gov).

Sincerely,



Dana Barton  
Acting Assistant Director,  
Superfund Division



## Expansion of EPA's Testing Area Community Indoor Air Update

Progress on mitigating homes and schools affected by vapor intrusion and step-out sampling to new homes on Coachella, San Pablo & San Patricio Avenues

U.S. Environmental Protection Agency • Region 9 • San Francisco, CA • April 2016

Philips, AMD 901-902 Thompson Place, TRW Microwave Superfund Sites ("Triple Site"), Sunnyvale, California

The U.S. Environmental Protection Agency (EPA) continues to request permission from certain residents in the Duane/San Miguel neighborhood to collect indoor air samples. EPA is also expanding the sampling area to include more residences based on newly collected data. This sampling is part of a study of the potential for vapor intrusion (a process where vapors from groundwater contamination may migrate into indoor air). In 2015 and 2016, EPA sampled 130 homes and 34 buildings at all four neighborhood schools. Six of the 34 school buildings and 20 of the 130 residences tested (households on Duane Avenue, Carmel Avenue, San Luisito Way and San Miguel Avenue) showed some evidence of potential vapor intrusion, primarily in crawlspaces. EPA is evaluating sampling results and overseeing the design and installation of mitigation systems to prevent vapors from accumulating indoors. **Based on these findings, EPA continues to recommend testing in all homes in the area that have not yet been sampled.** There is no cost to owners or tenants selected for this testing. To sign up for the sampling, please contact Melanie Morash, the EPA Project Manager, at (415) 972-3050 or by e-mail to [morash.melanie@epa.gov](mailto:morash.melanie@epa.gov).

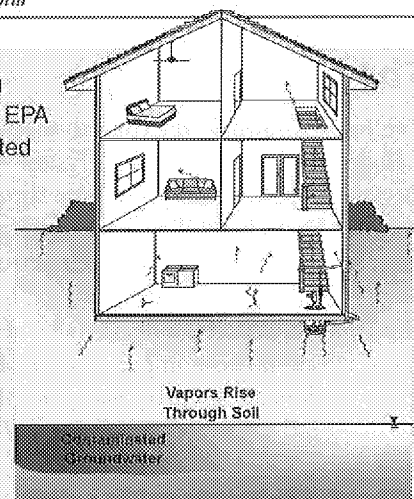
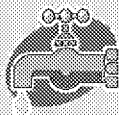


Figure 1: Vapor intrusion into a residence.

## TCE and Vapor Intrusion

The main chemical of concern in this investigation is trichloroethene (TCE). TCE is a type of volatile organic chemical (VOC) which can move as vapors from groundwater through soil under certain conditions. If vapors move under a building it is possible for them to pass through cracks and other openings in the foundation and enter the indoor air (see Figure 1). If this happens, and if the levels of VOCs are high enough and prolonged enough, it may create a health risk.

TCE is present in the groundwater due to historical semiconductor and other electronics manufacturing operations from the early years of Silicon Valley (dating back to the 1960s). Since the 1980s, the parties responsible for the environmental cleanup have been conducting activities to contain and clean up TCE in the shallow groundwater.



**Note:** Your drinking water does not come from groundwater in this area. Neighborhood drinking water comes from the Hetch Hetchy Reservoir in the Sierra Nevada Mountains and meets all state and federal drinking water standards.

and Children's Creative Learning Center (CCLC) were sampled. Many households and classrooms showed no evidence of vapor intrusion, having levels similar to outdoor air (which has low concentrations of TCE typical of the South Bay area).

As expected, the majority of locations sampled at the four schools showed low concentrations of TCE which do not pose a health risk and fully meet EPA's requirements for protecting children's and teachers' health. None of the CCLC samples showed any evidence of vapor intrusion. However, TCE was detected in the crawlspaces underneath certain other school buildings and in some classroom locations. Most of these classroom locations showed TCE when EPA sampled under "ventilation-off" conditions.

Additionally, 20 of 130 residences showed some indication of vapor intrusion in crawlspaces above EPA's acceptable level. Similar to the results of the school sampling, indoor air levels in most residences met EPA's health-protective requirements. Out of precaution, mitigation systems are being designed for these residences and six school buildings. Additional testing is ongoing at the other school buildings to determine if mitigation systems or longer-term monitoring would be appropriate to further reduce risk.

## Sampling Results

During the past year of indoor air sampling, 130 households (out of over 400 total) and 34 school buildings – Rainbow Montessori, San Miguel Elementary, The King's Academy

In the meantime, sampling continues and residents can call anytime to sign up for testing. EPA recommends a minimum of two rounds of testing at all households, including at least one round of winter testing.

## Why is the Testing Area Expanding?

Based on newly collected data showing homes affected by vapor intrusion on the easternmost boundary of the testing area (San Miguel Avenue), EPA has also expanded the sampling area. This "step-out" sampling area includes certain homes on Coachella, San Pablo and San Patricio Avenues (see Figure 2).

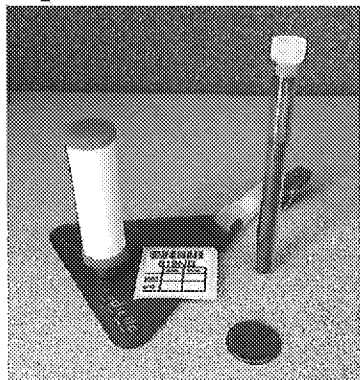
## The "Triple Site"

Informally known by the collective term "Triple Site", the site includes three groundwater TCE sites – the Advanced Micro Devices 901/902 Thompson Place Superfund Site (AMD 901/902 Site), the Philips (formerly Signetics) Site (Philips Site), and the TRW Microwave Superfund Site (TRW Site).

The Triple Site also includes the area of the neighborhood (see map), which has been impacted by TCE-containing groundwater — elevated above the acceptable level of 5 micrograms per liter (ug/L).

## What Happens Next?

Due to the potential for unacceptable vapor intrusion occurring on Duane Avenue, Carmel Avenue, San Luisito Way and San Miguel Avenue, EPA recommends testing within the sampling area shown, including the adjacent step-out area. Residents can call or e-mail anytime to sign up.

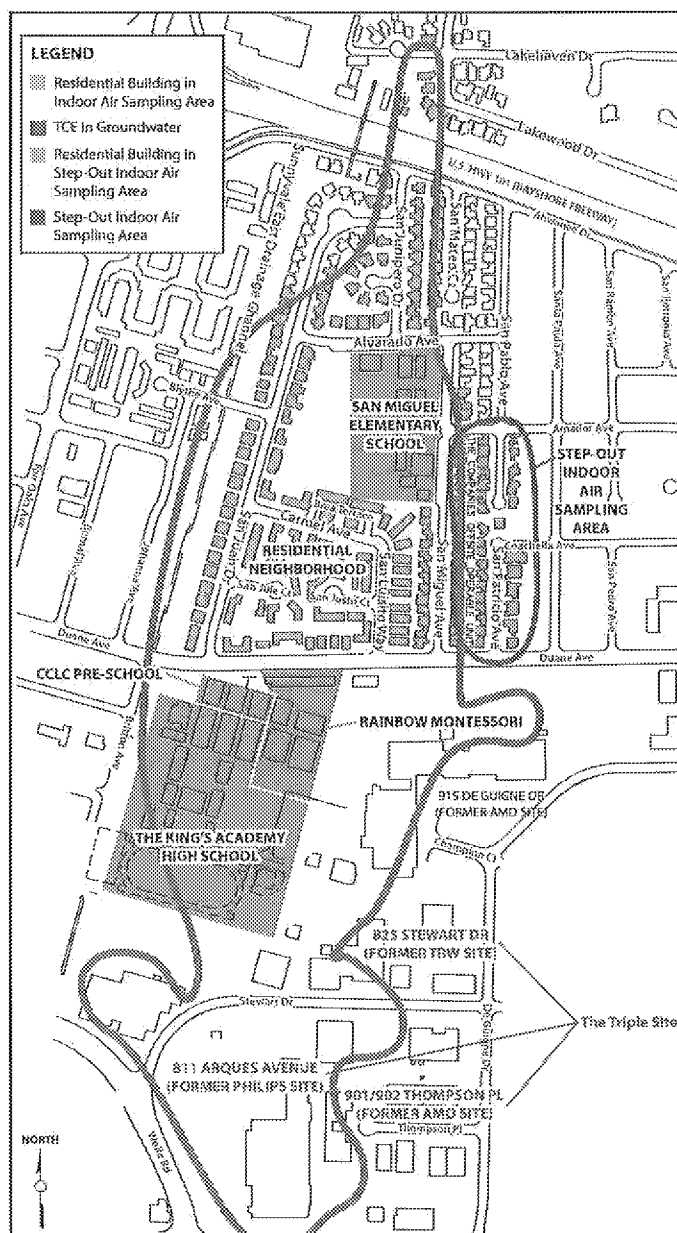


**Figure 3:** Home Indoor Air Sampler

When signing up for the sampling, please call (or e-mail) and leave a message with your name, telephone number, mailing address and/or e-mail address and the best time to reach you.

With residents' permission, two rounds of sampling will be conducted, including at least one round during the winter heating season. The process for testing TCE in indoor air is not disruptive, and simply involves placing a small sampling device in the home (for example, on a shelf or counter) and in the crawlspace beneath the home over a 24-hour to 2-week period.

During the testing, residents should avoid using chemicals which can interfere with the testing (such as on dry-cleaned clothing, paints, or carpet cleaners). EPA will notify each resident individually of the results within a few weeks after the testing. If a site-related vapor intrusion issue is found, there will be no cost to residents or property owners to put in place a solution. EPA will distribute another fact sheet in late 2016 and hold another community meeting to provide an update on the investigation and discuss next steps for the community.



**Figure 2:** Original indoor air sampling area and step-out indoor air sampling area. Approximate extent of TCE contamination above 5 micrograms per liter (ug/L) in shallow groundwater (around 10 feet).

## Who Do I Contact If I Would Like My Home Sampled?

Please contact any of the following if you would like your home sampled:

**Melanie Morash**  
EPA Project Manager  
(415) 972-3050  
[morash.melanie@epa.gov](mailto:morash.melanie@epa.gov)

**Alejandro Diaz**  
(Fluent in Spanish)  
EPA Community  
Involvement Coordinator  
(415) 972-3242  
[diaz.alejandro@epa.gov](mailto:diaz.alejandro@epa.gov)